



Department of Energy  
Washington, DC 20585  
February 17, 2000

RCRA Docket Information Center  
U.S. Environmental Protection Agency  
Headquarters (EPA, HQ)  
Office of Solid Waste (5305W)  
401 M Street, S.W.  
Washington, D.C. 20460

**Docket Number F-99-WH2P-FFFFF**

Dear Sir or Madam:

*Re: 64 FR 63382, "Hazardous Waste Identification Rule (HWIR): Identification and Listing of Hazardous Wastes"*

On November 19, 1999, the Environmental Protection Agency (EPA) published a notice of proposed rulemaking (NPRM) in the *Federal Register* which, among other things, proposes to retain and amend the mixture rule (40 CFR 261.3(a)(2)(iii) and (iv)) and the derived-from rule (40 CFR 261.3(c)(2)(i)) in the Resource Conservation and Recovery Act (RCRA) hazardous waste regulations. Comments were requested by February 17, 2000 on the sections of the NPRM which address the proposed retention and amendment of the mixture and derived-from rules. The NPRM also discusses an implementation framework for an exemption from hazardous waste management requirements for wastes that meet chemical-specific exemption levels (referred to as "the HWIR exemption"), and the possibility of replacing the technology-based land disposal restriction (LDR) treatment standards with risk-based treatment standards. Comments on the sections of the NPRM which address the HWIR exemption and potential revisions to the LDR treatment standards were requested by May 17, 2000.

This letter forwards the Department of Energy's (DOE) consolidated response to EPA's proposal to retain and amend the mixture and derived-from rules. By the May deadline, DOE plans to file a separate comment package addressing the proposed HWIR exemption and the possible revision to the LDR treatment standards.

The NPRM proposes two amendments affecting the mixture and derived-from rules. The first amendment would expand an existing exemption in the mixture rule. Under the expanded exemption, all wastes listed solely because they exhibit the ignitability, corrosivity and/or reactivity characteristics, and all mixtures and derivatives of such wastes, would be exempt from hazardous waste regulation (in spite of the mixture and derived-from rules) if they are de-characterized and meet the appropriate LDR treatment standards at the point of disposal. The second amendment would exempt from hazardous waste regulation mixtures and derivatives of mixed wastes that qualify under proposed 40 CFR Part 266, Subpart N for a conditional exemption from RCRA hazardous waste regulations [*see* 64 FR 63464; November 19, 1999 (conditional exemptions from hazardous waste requirements for certain LLMW and eligible naturally occurring or accelerator-produced radioactive material (NARM))].

DOE appreciates the opportunity to comment on the proposed retention of and amendments to the mixture and derived-from rules. The Department believes this proposal will reduce unnecessary regulation of some low-risk wastes. DOE supports EPA's decision to move forward with this NPRM proposing reductions in regulatory burden as quickly as possible. However, DOE believes certain parts of the proposal would benefit from further clarification, as the enclosed DOE consolidated comments explain. These comments are divided into two sections: general and specific. The general comments provide overarching reactions to sections of the NPRM which address retention and amendment of the mixture and derived-from rules. The specific comments relate directly to potential regulatory approaches and issues raised in such sections. For clarity, each specific comment is preceded by a reference to the section of the NPRM to which it applies, and a brief description is given in boldface type of the issue within that section to which DOE's comment is directed.

If you have any questions or need further clarification of our comments, please contact Bill Fortune of my staff at (202) 586-7302 or [william.fortune@eh.doe.gov](mailto:william.fortune@eh.doe.gov).

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Berube', with a stylized, cursive flourish at the end.

Raymond P. Berube  
Acting Director  
Office of Environmental Policy and Guidance

Enclosure

cc: A. Klinger, Office of Solid Waste (5304W)  
T. Atagi, Office of Solid Waste (5304W)



**UNITED STATES  
DEPARTMENT OF ENERGY**

**COMMENTS ON  
PROPOSED RETENTION AND AMENDMENT OF THE  
MIXTURE AND DERIVED-FROM RULES**

**NOTICE OF PROPOSED RULEMAKING  
Sections I - IV and XXI -XXVI  
(64 FR 63382 - 63391 and 63447 - 63461; November 19, 1999)**

**UNITED STATES DEPARTMENT OF ENERGY  
COMMENTS ON PROPOSED RETENTION AND AMENDMENT OF THE  
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**GENERAL COMMENTS**

1. The Department of Energy (DOE) generally supports the proposed changes to the Mixture and Derived-From Rules. The Department agrees that proceeding with these changes, and with the proposed conditional exemptions for treatment/storage and transportation/disposal of mixed waste [see 64 FR 63464; November 19, 1999], better serves the public interest than would seeking another extension of the consent decree deadline [*Environmental Technology Council v. Browner*, C.A. No. 94-2346 (TFH) (D.D.C.)]. DOE understands that the parties to the *Environmental Technology Council* consent decree expected EPA to replace the Mixture and Derived-From Rules with a system of constituent-specific, risk-based exemption levels, which would identify low-risk wastes not requiring regulation as hazardous waste. However, EPA has determined that reliable constituent-specific exemption levels can not be developed within the time frame anticipated by the consent decree for changing the Mixture and Derived-From Rules. Therefore, EPA is proposing to retain the Mixture and Derived-From Rules with certain added exemptions, and to create conditional exemptions from hazardous waste regulation for certain mixed wastes. DOE believes these proposals will reduce unnecessary regulation of some low-risk wastes and reduce dual regulation under the Resource Conservation and Recovery Act (RCRA) and the Atomic Energy Act of 1954 (AEA) of some mixed wastes. DOE supports EPA's decision to propose such reductions in regulatory burden as quickly as possible.
2. DOE appreciates the opportunity to comment during the 90-day comment period on the proposed retention and amendment of the Mixture and Derived-From Rules. The Department also expects to file comments within the 180-day comment period on the proposed implementation framework for the Hazardous Waste Identification Rule (HWIR) exemption, including the possible replacement of technology-based Land Disposal Restriction (LDR) treatment standards with risk-based treatment standards.

**SPECIFIC COMMENTS**

**II. What Is EPA Proposing Today and on What Other Actions Is EPA Seeking Comment?**

**II.E. What Other Regulatory Options Have Been Received From EPA Stakeholders?**

1. **p. 63386, col. 3 - 63387, col. 1** – EPA explains that the Chemical Manufacturers Association (CMA) submitted a proposal to EPA that describes additional regulatory options for revising the mixture and derived-from rules. Among other things, the CMA proposal includes an option whereby residues from the combustion of listed hazardous waste would be exempt from the derived-from rule. As such, combustion residues would not be classified as hazardous simply because it is generated from the treatment of listed hazardous waste. It would be

**hazardous waste only if it exhibits one or more hazardous waste characteristics. EPA further explains that the Agency is considering another possible approach for addressing combustion residues, which would list these derived-from wastes under their own multi-source listing code.**

In response to the proposed rule regarding air emission standards for hazardous waste combustors [61 FR 17358 (April 19, 1996)], DOE provided comments<sup>1</sup> and follow-up information.<sup>2</sup> In those documents, DOE discussed some of the special problems that mixed waste incinerators have, or may have, in complying with air emission standards and LDR treatment standards applicable to incineration residues. Specifically, DOE has advocated that EPA establish a separate subcategory for mixed waste incinerators for purposes of regulation under §112 of the Clean Air Act. In addition, DOE has recommended that EPA consider establishing a new waste code subcategory for radioactive high-mercury inorganic wastes in the Table of Treatment Standards for Hazardous Waste. In light of such earlier communications, DOE encourages EPA to be mindful of the special concerns associated with sampling, testing, and handling mixed waste combustion residues as the Agency considers both the CMA proposal and/or adoption of any LDR treatment standards for hazardous waste combustion residues.

2. **p. 63387, cols. 1 & 2 – EPA explains that, among other things, the CMA proposal includes an option that would expand the current “headworks” exemption in 40 CFR 261.3(a)(2)(iv)(A) and (B). The headworks exemption exempts from the mixture rule wastewaters containing small quantities of particular F-listed solvents, based on the mass-balance flow of these solvents through the headworks of industrial wastewater treatment systems.**

If EPA decides to adopt this option proposed by the CMA, or modify this particular regulatory provision, DOE recommends incorporating a clear definition of “headworks” for the purpose of claiming the exemption. For example, a possible definition of “headworks” would be “the calculated average of all influents flowing into the first aggregation point (treatment unit) of the treatment system.”

#### **IV. How and Why Is EPA Proposing To Revise the Hazardous Waste Identification Regulations for Mixtures and Derived-From Wastes?**

##### **IV.A How and Why is EPA Proposing To Revise the Hazardous Waste Identification Regulations for Wastes That Were Listed Solely for Ignitability, Corrosivity and/or Reactivity?**

1. **p. 63390, col. 3 – EPA proposes to revise the Mixture Rule (40 CFR 261.3(a)(2)(iii)) and the Derived-From Rule (40 CFR 261.3(c)(2)(i)). Under the existing regulations, mixtures of a solid waste and hazardous wastes listed solely because they exhibit the ignitability, corrosivity, reactivity, and/or toxicity characteristics are no longer considered RCRA hazardous wastes if the mixtures no longer exhibit any hazardous characteristics. The**

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<sup>1</sup> DOE Comments regarding 61 FR 17358, *Hazardous Waste Combustors; Revised Standards; Proposed Rule*, September 23, 1996.

<sup>2</sup> Letter from R. Pelletier (DOE, Office of Environmental Policy and Assistance) to E. Cotsworth (EPA, Office of Solid Waste) regarding March 10, 1997 Meeting, May 23, 1997.

**proposed revision would change this regulatory approach/exemption so that it would apply to the following wastes and materials, provided that such wastes or materials do not exhibit any characteristic of hazardous waste and meet the appropriate LDR treatment standards: residuals from treatment, storage or disposal of hazardous wastes listed solely because they exhibit the characteristics of ignitability, corrosivity, and/or reactivity; mixtures of solid waste and hazardous wastes listed solely because they exhibit the characteristics of ignitability, corrosivity, and/or reactivity; and any waste listed solely for ignitability, corrosivity, and/or reactivity, which, as generated, meets an original listing description (but does not exhibit the hazardous characteristic that was the sole basis for the listing).**

DOE supports the conceptual basis of the proposed revision of the Mixture and Derived-From Rules. DOE agrees that the wastes which the proposal would exempt from hazardous waste regulations present sufficiently low risk to human health and the environment that regulating them as hazardous should not be necessary. Furthermore, DOE endorses consistent regulation (in cases involving an original hazardous waste listed solely because it is ignitable, corrosive, and/or reactive) of mixtures, residuals, and as-generated wastes meeting the original listing description (but not exhibiting the characteristic for which the waste was listed). Notwithstanding, DOE has several concerns with the specifics of the proposal, which are described below.

- a. EPA proposes to eliminate the existing section 40 CFR 261.3(a)(2)(iii), which defines as hazardous waste a mixture of a solid waste and a hazardous waste listed solely because it exhibits a characteristic (*i.e., ignitability, corrosivity, reactivity, and toxicity*), unless the mixture no longer exhibits any characteristic. A new section 40 CFR 261.3(g) would be added, which would exclude from regulation any hazardous waste listed solely because it exhibits one or more of the characteristics of *ignitability, corrosivity, and reactivity*, if the waste no longer exhibits any characteristic. In addition, §261.3(g) would exclude from regulation any derivative of or mixture with a solid waste of a hazardous waste listed solely because it exhibits one or more of the characteristics of *ignitability, corrosivity, and reactivity*, if the derivative or mixture no longer exhibits any characteristic.

DOE notes that, in this NPRM, EPA does not offer an explanation for omitting wastes listed solely because they exhibit the characteristic of toxicity from eligibility for the proposed exclusions from the mixture and derived-from rules that would be granted by 40 CFR 261.3(g). DOE is aware that, in the preamble to the initial proposal of the Hazardous Waste Identification Rule (HWIR) [60 FR 66344 (December 21, 1995)], EPA explained that, “since no listings to date have been based on the toxicity characteristic, EPA is proposing to limit the new revision to the derived-from rule to wastes listed because they exhibit only the characteristics of ignitability, corrosivity, or reactivity.” DOE is unaware whether any hazardous wastes have been listed since 1995 solely because they exhibit the characteristic of toxicity. However, DOE believes that it is confusing to give no explanation in this NPRM for proposing the elimination of an existing exclusion from the mixture rule, even if no wastes now exist that are eligible for the exclusion. As such, DOE recommends that the preamble for the final rule contain such an explanation.

- b. EPA makes the following statement about ignitable, corrosive, and reactive waste: "Thus, today's proposed revision would expand this exemption which is currently in the mixture rule only, so that all these materials would be exempt from hazardous waste regulation if they are de-characterized and meet the appropriate LDR treatment standards, including treatment for all

underlying hazardous constituents (as defined in 40 CFR 268.3(i))." This statement is confusing with respect to the discussion of underlying hazardous constituents (UHCs), because existing 40 CFR 261.3(a)(2)(iii) contains the following statement:

However, nonwastewater mixtures are still subject to the requirements of part 268 of this chapter, even if they no longer exhibit a characteristic at the point of land disposal.

The proposed rule contains a similar statement in §261.3(g)(3). DOE has always understood EPA's interpretation of the existing requirement to be that LDR treatment standards established for the as-listed waste must be met by nonwastewater mixtures. If the LDR treatment standard is in the form of constituent concentration levels, then compliant treatment would involve meeting the specified levels for the specified constituents. Further evaluation of or treatment for UHCs is not necessary. In the event the LDR treatment standard established for the as-listed waste is in the form of a specified technology, treatment using the specified technology is required. However, DOE is not aware that further effort is required to identify or treat UHCs. [See 63 FR 42110, 42168 (August 6, 1998)] DOE requests that the final rule clarify that EPA has not changed its interpretation of the applicability of UHCs to listed wastes, and does not intend the phrase "are still subject to part 268" in proposed §261.3(g)(3) to be implemented by requiring identification of UHCs according to the definition in 40 CFR 268.2(i) and treatment of UHCs to meet universal treatment standards. If EPA did so intend, it appears that the Agency is changing its established approach regarding the applicability of UHCs to listed hazardous waste.

- c. While DOE recognizes that LDR treatment standards would continue to apply to decharacterized mixtures and residuals as described in the preceding paragraph, DOE believes that, as long as LDR treatment standards remain technology-based rather than risk-based, requiring decharacterized mixtures and residuals to meet LDR treatment standards could force treatment that is not necessary to minimize threats to human health or the environment. Hence, DOE urges EPA to move forward with development of risk-based LDR treatment standards as expeditiously as possible.

- 2. **p. 63391, col. 1 – EPA explains that, although F003 is listed solely for ignitability, its listing description also includes references to solvents that were listed for being toxic wastes. EPA requests comment on whether, for this reason, F003 should not be eligible for the exemption in proposed 40 CFR 261.3(g).**

DOE believes that F003 spent non-halogenated solvents, F003 spent mixtures of non-halogenated solvents, and F003 still bottoms from such spent solvents and mixtures should clearly be eligible for the exemptions in proposed 40 CFR 261.3(g), because these F003 wastes do not contain solvents listed for being toxic wastes. DOE further believes that F003 spent solvent mixtures/blends containing solvents listed for being toxic wastes (i.e., solvents in waste codes F001, F002, F004, and F005) should also be eligible for the exemptions in proposed 40 CFR 261.3(g), because the exemption requires that applicable LDR treatment standards must be met and the waste must not exhibit any hazardous characteristic at the point of disposal. In the case of an F003 spent solvent mixture/blend, the applicable LDR treatment standard includes treatment to reduce the concentration of each solvent in the mixture/blend to less than that solvent's universal treatment standard, as indicated in the table of Treatment Standards for Hazardous Waste in 40 CFR 268.40. DOE submits that this LDR treatment standard, in combination with the additional requirement of the exemption that the waste must not

exhibit any characteristic of hazardous waste at the point of disposal, is equally as protective of human health and the environment as is treatment of a waste exhibiting any characteristic of hazardous waste to meet applicable LDR treatment standards. Accordingly, since LDR-compliant characteristic wastes may be managed in non-hazardous facilities, DOE believes F003 spent solvent mixtures/blends that meet the exemption requirements also could be safely managed in non-hazardous facilities. Hence, DOE supports eligibility of all F003 wastes for the exemptions in proposed 40 CFR 261.3(g).

#### **IV.B How is EPA Proposing To Revise the Mixture and Derived-From Rules for Mixed Waste?**

**1. p. 63391, cols. 1 and 2 – EPA requests comment on its proposal that a conditional exemption from the Mixture and Derived-From Rules be created for mixed wastes handled in accordance with 40 CFR Part 266, Subpart N.**

DOE supports exemptions from the Mixture and Derived-From Rules for mixed wastes being managed in accordance with 40 CFR Part 266, Subpart N. However, DOE is concerned that the regulatory text (p. 63461) proposed for the Mixture and Derived-From Rules is not an appropriate approach for implementing the proposed exemption. One problem arises in that, unlike the proposed treatment/storage conditional exemption in section 266.220, the proposed regulation for the transportation/disposal conditional exemption for mixed waste, section 266.305, exempts the waste from certain RCRA requirements (provided specified conditions are met), but does not exempt the waste from the definition of hazardous waste. This presents a problem because proposed 40 CFR 261.3(a)(2)(iii) requires that a mixture be excluded from the definition of hazardous waste before the mixture would be exempt from the mixture rule.

A second problem arises in that the proposed exemption from the derived-from rule (i.e., proposed 40 CFR 261.3(c)(2)(i)) indicates that derivatives are hazardous waste “except as otherwise provided in paragraph (c)(2)(ii) or (g) of this section or in part 266, subpart N.” This presents a problem because, in contrast with §261.3(c)(2)(ii) and proposed §261.3(g), each of which specifically states that certain derivatives of hazardous wastes are not also hazardous wastes, proposed 40 CFR 266, subpart N contains no provisions specifically stating that derivatives resulting from the treatment, storage, or disposal of low-level mixed waste or NARM-contaminated hazardous waste are not also hazardous wastes.

DOE believes EPA must resolve the problems mentioned above in order to implement exemptions from the mixture and derived-from rules for conditionally exempt low-level mixed wastes and NARM-contaminated hazardous wastes in the manner contemplated by the NPRM. If EPA intended the transportation/disposal conditional exemption to be an exemption from the definition of hazardous waste, then the exemptions from the mixture and derived-from rules could be implemented by adding a provision in 40 CFR 261.4(b). Such a provision would identify LLMW and eligible NARM that meets the requirements of proposed 40 CFR 266, Subpart N, as solid waste that is not hazardous. Corresponding changes would also be needed in 40 CFR 261.3. For example, changes in 40 CFR 261.3 and 40 CFR 261.4 are suggested below [**redline** font = addition; ~~strikeout~~ font = deletion].

Amend §261.3(a) and (c) as follows:

- Revise paragraph existing (a)(2)(ii) to read:



It is listed in subpart D of this part and has not been excluded from the lists in subpart D of this part under §§260.20 and 260.22 of this chapter, **or is excluded by paragraph (g) of this section.**

- Remove existing paragraph (a)(2)(iii).
- Redesignate paragraphs (a)(2)(iv) through (a)(2)(v) as paragraphs (a)(2)(iii) through (a)(2)(iv).
- Revise newly designated paragraph (a)(2)(iii) to read:

It is a mixture of solid waste and one or more hazardous wastes listed in subpart D of this part and has not been excluded from paragraph (a)(2) of this section under §§260.20 and 260.22 of this chapter, **or is excluded by paragraph (g) of this section, or unless the solid waste is excluded from regulation under 261.4(b)(7) and the resultant mixture is excluded by paragraph (g) of this section;** however, the following mixtures of solid wastes and hazardous wastes listed in subpart D of this part are not hazardous wastes (except by application of paragraph (a)(2)(i) or (ii) of this section) if the generator can demonstrate that the mixture consists of wastewater the discharge of which is subject to regulation under either section 402 or section 307(b) of the Clean Water Act (including wastewater at facilities which have eliminated the discharge of wastewater) and; . . .

- Revise paragraph (c)(2)(i) to read:

Except as otherwise provided in paragraph (c)(2)(ii) **or (g)** of this section, any solid waste generated from the treatment, storage, or disposal of a hazardous waste, including any sludge, spill residue, ash, emission control dust, or leachate (but not including precipitation run-off) is a hazardous waste. . . .

Amend §261.4 as follows:

- Add new paragraph (b)(16) to read:

Low-level mixed waste and eligible NARM that meets the requirements under part 266, subpart N of this chapter.

Alternatively, EPA could consider addressing in a dedicated subsection of 40 CFR 261.3 the issue of the hazardous waste status of materials being managed under the conditional exemptions in proposed 40 CFR 266, subpart N.